

MAR 11 1929

Medical J.

THE RHODE ISLAND MEDICAL JOURNAL



Owned and Published by the Rhode Island Medical Society. Issued Monthly

VOLUME XII
NO. 3.

} Whole No. 234

PROVIDENCE, R. I., MARCH, 1929

PER YEAR \$2.00
SINGLE COPY 25 CENTS

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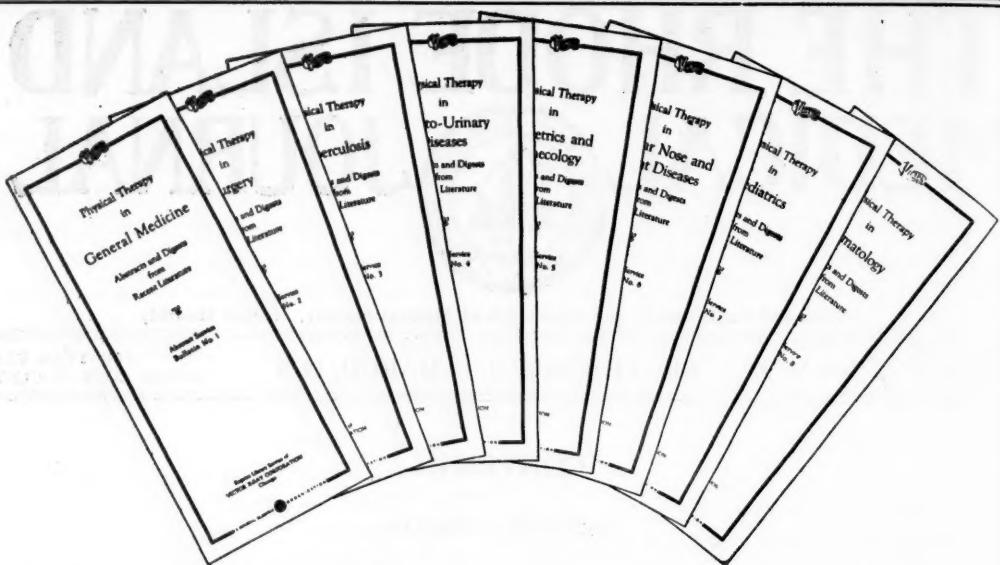
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ORIGINAL ARTICLES

INTRASPINAL ANESTHESIA*

by

MEYER SAKLAD, M.D.

PROVIDENCE, R. I.

Intraspinal anesthesia is a nerve block produced by the introduction of an anesthetic solution within the subarachnoid space. It is also known as spinal anesthesia and subarachnoid anesthesia.

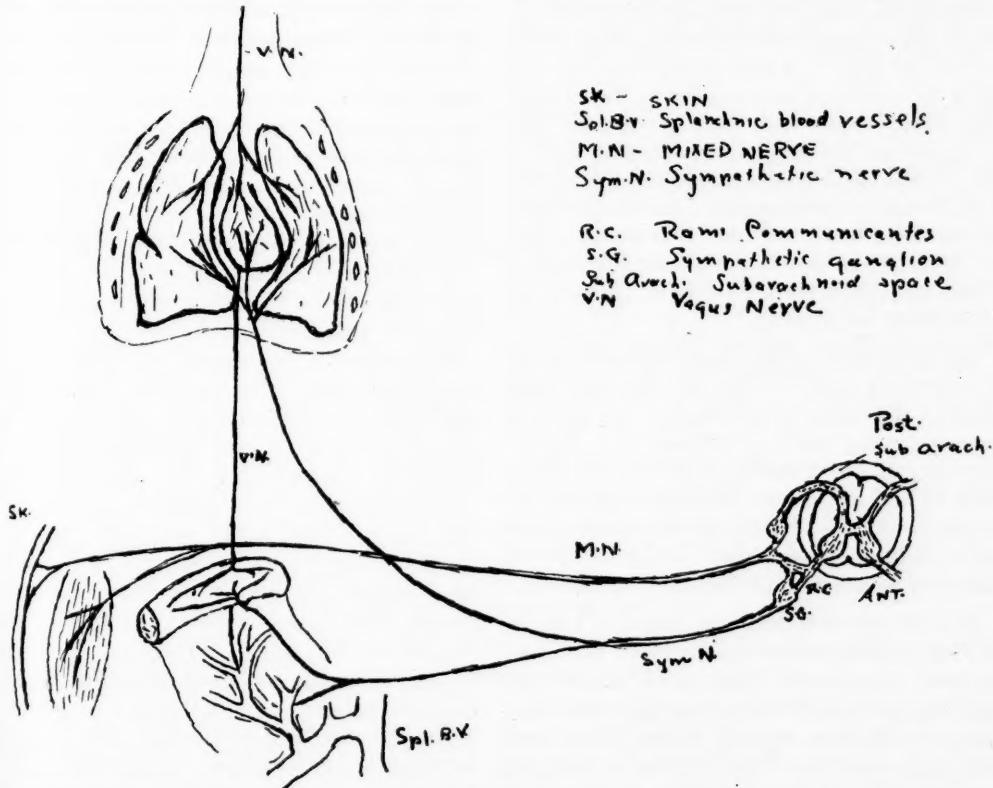
This type of anesthesia was first suggested by Corning in 1885. Bier was the first to recognize its value in surgery. He discontinued its use because of the effects of cocaine, which he used as

the anesthetic agent. The discovery of novocaine in 1904 gave intraspinal anesthesia its greatest impetus.

Intraspinal anesthesia has one great danger—the fall in blood pressure. This fall occurs often and may become serious if no measures are taken to prevent or treat it.

With this in mind, it seems best to first reacquaint ourselves with the anatomy and physiology of the area involved so that we can better understand the mechanism of this fall in blood pressure, its prevention, and treatment.

There are two sources of innervation to the thoracic and abdominal organs—the sympathetic system and the vagus nerve. The actions of the sympathetic system and the vagus nerve are an-



*Read before the Providence Medical Association, November 5, 1928.

tagonistic. The sympathetic nerves and plexuses arise from the sympathetic ganglia. Carried to the sympathetic ganglia by rami-communicantes are vaso-constrictor fibres to the splanchnic area. The sympathetic system acts as an accelerator to the thoracic organs and depressor to the gastro-intestinal tract. The vagus nerve is the counter-balance to the sympathetic system and its action is antagonistic to it. It is, therefore, depressor to the thoracic organs and an accelerator to the gastro-intestinal tract.

Let us now see what happens if an anesthetic solution is placed within the subarachnoid space. The solution acts as a dye and penetrates both the anterior and posterior roots, thus abolishing all pain. It blocks all outgoing motor stimuli at the anterior root, thus bringing about paralysis of the muscles supplied by that nerve, resulting in relaxation of that muscle. An important consideration here is that since it blocks all impulses at the motor root it also blocks impulses thru the rami-communicantes carrying vaso-constrictor fibres. The impulses thru the vaso-constrictor fibres being blocked, the result is a vaso-dilatation of the vessels in the splanchnic area supplied by these fibres. These blood vessels with their lost tonicity take up blood from the general circulation at the expense of the blood vessels whose tonicity has not been effected by the anesthesia. This then accounts for the fall in blood pressure. It is also seen that the higher the anesthesia the greater the number of vaso-constrictor fibres involved and the greater the fall in blood pressure.

The sympathetic system itself being paralyzed its accelerator action is gone and the depressing action of the vagus predominates. The result is a slowly beating heart and a diminished respiratory rate. In the abdomen with the depressing action of the splanchnics not functioning the accelerator action of the vagus predominates and we have an increase in peristalsis. This is the clinical picture of a patient under intraspinal anesthesia.

We have now to consider the danger of a marked drop in blood pressure. The blood vessels of the brain are terminal. They do not anastomose. They have very little muscular structure and very little external tissue support. If the fall in blood pressure is great the volume of blood is small and a collapse of these vessels is likely. A collapse of these vessels results in cerebral anemia. It is this

accident that is responsible for the deaths that have occurred under intraspinal anesthesia.

This danger is prevented by using one of two procedures. Labat recommends the use of the Trendelenberg position. In this position, the cerebral blood vessels are kept distended by gravity. The other is the hypodermic injection of ephedrine. Ephedrine is used because of its vaso-constrictor action and maintains the blood pressure at or near its normal level.

The patient is prepared as for a general anesthesia. The ether breakfast and cleansing enema are given routinely. The cleansing enema is important since hyperperistalsis exists during spinal anesthesia and a bowel evacuation may occur unless this enema is given preoperatively.

Morphia gr. 1/6-hyoscine gr. 1/300 is used as a preoperative medication. If the patient is very nervous or apprehensive a smaller dose one hour and repeated one-half hour before operation will be found valuable.

Novocaine is used as the anesthetic agent. It is the least toxic and therefore the safest.

Three types of solutions are recommended. Labat uses novocaine crystals dissolved in spinal fluid obtaining a solution isotonic with the spinal fluid. Pitkin recommends the use of a viscid solution of a lighter specific gravity than spinal fluid. Hepburn suggests novocaine in 5% glucose resulting in a solution much heavier than spinal fluid.

In using the Labat technique, the patient is seated across the operating table, feet resting on a stool, arms folded, and back arched.

The patient is steadied in this position by a nurse who stands in front of him. The back is painted with iodine and draped with towels. The site of injection depends on the operation intended. For operation on the lower extremities or perineum injection is made between the third and fourth lumbar spines, for lower abdominal operations between the second and third, and for upper abdominal operations between the first and second. The site of injection is infiltrated with one-half of one per cent novocaine.

The lumbar puncture needle should be unbreakable, of medium gauge and should have a short bevel. The needle should be held firmly and inserted in the midline midway between two spinous processes and perpendicular to the skin. The needle should be advanced slowly until the sensa-

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INTRASPINAL ANESTHESIA

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tion of a click is imparted to the fingers. This click is caused by the puncture of the dura. The stylet is removed and the flow of spinal fluid confirms the location of the needle.

It is sometimes difficult to enter the spinal canal. The reason for this is that the "u" shaped hiatus is small. In people with arthritic disease it is sometimes bridged over. If the hiatus is small, and no success is had with the usual technique it is wise to partially withdraw the needle and introduce at a slight upward angle, gradually increasing the angle till entrance is obtained. Even with this procedure failures occur.

Spinal fluid is allowed to run into an ampule of sterile and accurately weighed novocaine crystals, the neck of which has been previously filed off. The crystals are allowed to dissolve. The solution is then aspirated into a syringe, the air expelled, and the syringe attached to the needle. Gentle aspiration is made to redetermine the location of the needle. One-half of the contents are gently injected and gentle aspiration again made. The entire solution is now slowly injected. The syringe and needle are removed together by one quick pull. The patient is placed on his back and the table tipped into moderate Trendelenberg.

Dr. Shaw will discuss Pitkin's solution and its technique.

In using the novocaine and glucose solution injection is made with the patient on his side, back flexed and knees brought up. Injection may be made in any of the lower interspaces. Lumbar puncture is made in the usual manner and the novocaine glucose solution injected. The patient is then quickly turned onto his back. His head is flexed on to the chest and table tilted to about 15 degrees Trendelenberg and there kept for about 25 to 30 seconds. The table is then turned flat. This solution is a dangerous one to use since the patient cannot be kept in Trendelenberg position. Placing the patient into Trendelenberg position would subject the patient to the danger of respiratory paralysis. If used at all it should be only in the young with good circulatory systems after a large preliminary dose of ephedrine.

Intraspinal anesthesia usually lasts an hour and occasionally up to one and one-half hours. Blood pressure readings should be taken every five minutes during operation. If the blood pressure continues to fall the patient should be placed in a greater degree of Trendelenberg.

A moderate degree of nausea and vomiting may sometimes occur. This is due to the reverse peristalsis that sometimes takes place. This can usually be relieved by pinching the patient's nose and asking him to breathe through his mouth. It is wise not to allow the patient to hold his breath since this encourages vomiting.

In a series of 25 cases, 2 patients died. The first death occurred in a man 74 years old. A total prostatectomy under low spinal anesthesia was performed. He began with a blood pressure of 145/70. During operation it dropped to 115/60. At the end of the operation it had returned to 125/75. He stood his operation well and went back to bed in seemingly good condition. He died two days later of Anuria and Myocarditis. The other death occurred in a woman 76 years old. A cystotomy for fulguration of papilloma was performed. She began her operation with a blood pressure of 95/50. She did well for one-half hour, and then for a period of fifteen minutes her blood pressure could not be determined. In spite of this she looked fairly well. A subcutaneous injection of 15 minimis of adrenalin was given. Her blood pressure picked up. Her operation ended with her blood pressure at 95/70 and a pulse of 110. She did well for 4 days and then became delirious and would not eat. She died 8 days after operation.

There was an average fall of 20 mm. in the systolic pressures. The greatest fall occurred in a man during perineal prostatectomy. The blood pressure fell from 145/90 to 65/45. The operation ended with his blood pressure at 120/75. He did nicely and was discharged well. There were 6 cases in which the blood pressure did not fall at all.

Two cases, both in very nervous women who had a hysterectomy performed, were finished with nitrous oxide. One went for 50 minutes complained of no pain but had a dull stomach ache. The other complained of cramps after 30 minutes operating.

Two patients vomited on the table. In both cases it was slight.

One man retained motor function in his legs but had no abdominal pain. He did well until after his appendix was exposed. It was very much tied down and in freeing it up he began to strain and it was necessary to give him gas ether.

In this series were:

7 prostatectomies	1 repair of hydrocele
8 appendectomies	2 hysterectomies, finished
3 inguinal herniorraphy	with N20
1 repair strangulated inguinal hernia	2 cystotomies
	1 repair perforated duodenal ulcer

Intraspinal anesthesia gives us the relaxation equal to that of ether anesthesia without the pulmonary irritation. It is definitely indicated when operative interference is required in patients suffering from pulmonary conditions as tuberculosis, bronchitis, or asthma.

Acidosis occurs less frequently after spinal anesthesia than after ether anesthesia. Because of the hyperperistalsis that exists during spinal anesthesia gas distension and paralytic ileus are rarely encountered. Heart action and respiratory rate remain at or near their normal level.

How can it be compared with infiltration, field block, and paravertebral anesthesia? In none of these is the relaxation as definite or complete as that in intraspinal anesthesia. None of these produce the contracted intestine with the splanchnic anesthesia allowing for handling and manipulation of abdominal contents.

In conclusion, intraspinal anesthesia is a procedure of definite value. It is associated with one danger—the fall in blood pressure. Death under intraspinal anesthesia is the result of cerebral anemia. This accident can be prevented by the use of ephedrine and the Trendelenberg position. The Trendelenberg position is the more dependable. This type of anesthesia should not be limited alone to the poor risk. It lays no stress on the vital organs. Patients should be carefully prepared, and blood pressure readings taken at regular intervals during operation.

HAY FEVER IN NEW ENGLAND

by

JAY N. FISHBEIN, M.D.

PROVIDENCE, R. I.

Hay fever or rose cold has been known to the profession since 1565. It was not, however, until 1873 that Blackley revealed the cause as due to the specific action of pollen of plants. Curtis, in 1900, was the first to attempt to produce active immunity by using extracts of the whole plant, and a few

years later Dunbar, by his exhaustive research, opened the way to a new method of treatment founded upon immunology. He isolated from the pollen what he thought to be a true toxin, but later investigation established the fact that the active substances of the pollens are proteins with active antigenic properties. The work of these men and its significance cannot be overestimated. The importance of hay fever can be realized when it is known that 1% of the entire population of the country is affected with this disease. This malady is sufficiently incapacitating in itself, but when we find that 65% of these eventually become asthmatic, the condition assumes even greater significance. It occurs in those regions in which plants rich in pollen flourish, but only when they have reached the flowering stage. The condition is one of hypersensitivity to these pollen proteins, and is induced primarily by the inhalation of these wind-borne pollen and only pollen inhaled during normal respiration causing hay fever.

In New England, there are three hay fever seasons.

1. Middle of March to the middle or last of May. This is usually due to the pollen of trees.

2. Middle or late May to the middle of July. This is due to the pollen of grasses.

(1) The first period extends from the middle of May to the middle of June and is due largely to the pollen of June and orchard grasses.

(2) The second period begins about the middle of June to the middle of July and is due to the pollen of timothy and redtop.

3. From early in August to the middle of September and is definitely closed by the first killing frost. This is due to the pollen of the ragweed. The symptoms of the three types are similar except as to the severity; the tree pollen producing the mildest symptoms and the ragweed causing the most severe reactions.

In the New England States we have the following grasses:

Grasses	Hay Fever Season
Black Walnut	March to May
Cottonwood	March to May
Oak	March to May
Sweet Vernal Grass	April to July
Orchard Grass	April to August
Sheep Sorrel	May to July

Yellow Dock	May to July
June Grass	May to September
Timothy	June to August
Redtop	June to September
Lambs Quarters	June to September
Cocklebur	July to September
Ragweed	August to October
Giant Ragweed	August to October

It is characteristic of hay fever grasses that they thrive only in open and sunny spaces.

Causes of Hay Fever

It is generally accepted that the symptoms of hay fever are caused primarily by wind-borne pollen and that these are so widely distributed that the mucous membrane of every person comes in contact with them, yet only those sensitized show the symptoms. This consideration at once eliminates all insect pollinated plants and the heavy viscous pollen and those that are not shed in abundance or which are not indigenous to the locality in which the patient experiences his symptoms. While there are many flowers and plants whose pollen will cause hay fever symptoms when directly inhaled, yet it is only the floating pollen that can reach the nostrils in the course of normal respiration that are responsible for true hay fever. The wind pollinated plants can be easily recognized from the insect pollinated plants, generally speaking, the former being distinguished by their inconspicuous flowers, devoid of scent or odor. Their pollen are very abundant, are light and buoyant and may be carried by the wind for miles. Scheppegral, in his pollen plate studies, made in an airplane, found that the pollen in the air was carried to an altitude of over 5000 feet and is almost as abundant as it is near the ground and that it can easily be carried for a distance of over 15 miles.

The insect pollinated plants are very highly colored, having a sweet scent and other characteristics tending to make them conspicuous. In order to attract the insects and ensure their fertilization, nature has made them attractive through brilliant color, fragrance, or nectar. The pollen of these plants are heavy and viscous and are shed very sparingly, as fertilization being direct less are needed. These plants are of importance in the production of hay fever only when grown in great profusion in close contact to the patient or used

for decorative purposes in the home, or if directly inhaled. These pollen are never found in the air in any great quantity. The symptoms, if they occur, are of short duration.

Just what causes the sensitiveness to the hay fever pollen is not known. Some believe it to be largely due to a lowered adrenal function. Underlying causes are nasal or nasopharyngeal disease or obstruction. There also exists a definite hereditary allergic sensitiveness in certain families.

Spring hay fever has often been designated as rose fever or rose cold, as it was believed to be due to rose pollen. This is erroneous as roses produce but little pollen and these are not buoyant. This spring type is invariably due to the pollen of the grasses. Similarly fall hay fever, popularly attributed to the pollen of the golden-rod is caused in the majority of cases to the ragweed. The pollen of corn, wheat, rye and oats while toxic are not important in the production of hay fever due to their being large and heavy so that they cannot travel far.

The hay fever of the first season need scarcely be mentioned as it is generally mild and of short duration, occurring during the flowering of such trees as elm, oak, poplar, birch, maple, walnut and willow. In general, it may be said of trees as with flowers, that those having blossoms that are showy, sweet scented, or otherwise attractive, shed so little pollen that they need not be seriously considered as factors in the production of hay fever.

Perennial Hay Fever or Non-Seasonal Hay Fever

This is not due to pollens and is not as easily recognized, being more often diagnosed as a primary nasal condition. Although there is considerable to be said on the subject, it will be mentioned here briefly, mentioning it merely to prevent its confusion with the seasonal type. The symptoms are typical hay fever symptoms occurring at times other than those established as hay fever seasons. The difficulty in recognizing these cases in being of allergic origin arises from the fact that the symptoms may be mild and of short duration, or in cases of longer duration lacking the prolonged explosive sneezing.

The allergic substance in this type are as a rule air borne substances, as animal emanations, vegetable powders and dusts. The animal emanations include the impalpable dust of feathers, the dander

of the horse, cat or dog. Rabbit and goat hair which are frequently used for bedding, in stuffing cushions, furniture, etc. Occasionally, face and talcum powders, containing rice powder or corn starch, may be causative factors. By cutaneous tests it is possible in many instances to determine which of these components is responsible for the symptoms. Occasionally, identical symptoms can be produced by ingestion. In the seasonal cases it is well to bear in mind that there are seasonal foods as well as pollen. The two may even be combined. There are definite cases of "hay fever" who find that their symptoms are aggravated by eating certain foods. It is these various combinations that are the most puzzling from a diagnostic viewpoint. They are usually diagnosed as ordinary colds. When such "colds" are afebrile, allergy should be suspected. The symptoms are fullness in the nose, a copious discharge and paroxysmal sneezing.

Symptoms

Nasal Symptoms:—

There are attacks of sneezing which are frequently prolonged, accompanied sometimes by a constant profuse discharge, nasal obstruction and headache. The appearance of the nasal mucosa falls into two classes. In the first type the nasal mucosa is reddened and considerably swollen, with an increased secretion of serum and mucus, associated with attacks of sneezing, in appearance it resembles an ordinary acute rhinitis. The second type has the characteristic appearance seen in the seasonal or perennial hay fevers. The redness is replaced by a marked pallor which may disappear between the acute attacks. The edema is also marked but it is not as constant as in the first type. The discharge of serum and mucus is practically constant. The distinguishing characteristic that places these cases definitely into the anaphylactic group is the pallor.

On examination of the nose we usually find obstruction from the edematous, pale mucous membrane. On spraying the nose with the 1% cocaine solution this turgescence is practically unaffected, nor does the topical application of a 4% solution have the effect comparable with cases of the non-anaphylactic type. In many of the cases particularly in the perennial type, polyps are present due to the degenerative changes occurring in the mucosa. Often the practitioner finding this condition

of hyperplastic ethmoiditis and believing that he has found the cause will confidently assure the patient that removing the polyps will clear up the symptoms, only to find them as bad as before, with the polypoid condition recurring in a short time. Headache occurring in these cases is rarely due to allergy primarily. It is usually of the frontal type, due to the general edema blocking the frontal sinus with the production of the "vacuum headaches".

Sinus disease either hyperplastic or suppurative is common, occurring in about a quarter of the cases. These are as a rule the result rather than the cause of the condition. In the hyperplastic type it is merely a continuation of the edematous condition present in the nose being aggravated in the acute attacks by interfering with the blood supply. This edema causing a mechanical obstruction of the sinus ostia with subsequent lack of drainage and poor blood supply rendering the sinus a fertile field for infection when it does occur.

The maxillary sinus is usually the first one to be involved and where the changes are most marked, as the ostia is placed in a position least favorable for drainage, and accessory ostia if present would be occluded similarly by the same mechanical obstruction. A thing worth remembering in antrum conditions, particularly in the hyperplastic type is that a considerable degree of degeneration of the mucosa can take place and lavage of the antrum still be negative. In making these lavages for diagnostic purposes by means of the needle puncture beneath the inferior turbinate, it is advisable to use a dark colored basin, to catch the returning fluid as in the hyperplastic type the fluid is serous in color and quite clear, and would therefore escape detection in the white basin commonly used. Frequently, on operation, these maxillary sinuses show a polypoid degeneration far greater than one would have had reason to suspect, from the apparently negative washings. An X-Ray study is of unquestionable value in these cases.

Schadie, in 1906, advanced the theory that hay fever was due to antral disease and reported the cure of a number of cases by lavaging the sinus. The symptoms were similar to those of allergic origin. There is a serous discharge, nasal occlusion with sneezing which is often marked. This is due to bacterial infection of the maxillary antrum which results in a polypoid degeneration of

the mucosa without much change in the normal appearance of the nasal mucosa. This serves to illustrate that the bacterial proteins elaborated on the upper respiratory mucosa are as capable of producing the symptoms of "hay fever" as are the proteins of pollen.

There exists a great difference of opinion as to the role played by nasal infections and the sinuses in hypersensitization. Schadle and others who relieved or cured certain cases by lavage of the maxillary sinus were quite convinced that they had discovered the cause of hypersensitivity. Other rhinologists who successfully treated other cases by the extirpation of the ethmoid cells, were just as firmly convinced that this was the cause. Allergists, on the other hand, were quite as earnest in their belief that all cases were due to pollen proteins. It is obviously wrong to assume any one of these to be the sole cause to the exclusion of all other factors. Nasal conditions undoubtedly play a strong role as a cause of hypersensitization. Particularly is this true in those cases that do not show skin reactions to the protein tests.

There is present a vicious cycle which is difficult to cope with. The pollen tend to irritate the mucous membrane resulting in edema and tending to infection and polyp formation. This condition tends to keep the mucosa of the upper respiratory tract in a congested or irritable state. The result of this is a blocking of the ostia, with increased sinus congestion, interference with drainage, etc. This interference with drainage results in an aggravation of the condition, greater edema and blocking of the ostia, etc. keeping this vicious cycle active.

The above facts can be briefly summarized as follows:

In an individual that is predisposed by heredity to hypersensitization, allergic reactions in the mucous membrane of the upper respiratory tract may be excited by the absorption of bacterial proteins from paranasal sinus infections.

Abnormal conditions in the nose such as polyps, sinus infections, deflected septi, etc., may precipitate an attack and may also increase the hypersensitivity of the individual, or may reduce his general vitality and resistance, thereby rendering desensitization methods practically or wholly ineffective.

A vicious cycle is established which tends to aggravate the symptoms and perpetuate the condition.

Orbital Symptoms:—There is conjunctival congestion with itching and puffiness of the lids to a varying degree accompanied by excessive lacrimation.

Aural Symptoms:—Occasionally, we may have tinnitus and vertigo simulating the Meniere complex, probably due to edema of the eustachian tube and tympanic mucosa.

Pharyngeal Symptoms:—Itching of the soft palate, uvula and pharynx may be present and edema of the parts in severe cases accompanied by cough.

Cutaneous Symptoms:—There may be itching varying in intensity from a simple pruritus and erythema to a dermatitis which however is usually confined to the exposed portions of the body—the hands, face and neck.

Diagnosis:—The diagnosis of hay fever of the seasonal type is not difficult when the patient exhibits the classical symptoms. It is characterized by swelling of the nasal mucous membrane accompanied by an itching with an excessive nasal secretion, lacrimation, conjunctivitis, and paroxysmal sneezing. Cough, general malaise and fever may occur in the more severe cases.

Often there is a history of other manifestations, as bronchial asthma, urticaria or eczema. A careful history is of great importance. In over 50% of real pollen hay fever, a positive family history can be elicited.

Before attempting treatment the physician should ascertain:

1. The exact date of onset and the duration of the patient's symptoms.

(It varies slightly each year depending on the time pollination begins.)

2. The pollen known to be prevalent in the patient's locality at the time he has his symptoms.

3. The pollen to which he is susceptible and which were determined by the cutaneous tests.

4. What treatment he has already had.

5. By careful examination (transillumination and X-Ray if necessary) determine whether there is any local condition contributing to the symptoms, such as deflected septum, polyps or sinus infection. Differentiation from other allergic diseases should be made. It is superfluous to test a patient for pollen not present in his vicinity, for

patients may exhibit skin reactions to pollen to which they are not exposed. Also pollen which are not present in the air as it is only the pollen which reach the nasal mucous membrane in the course of normal respiration that are responsible for true hay fever. Duke says that the plants producing the greatest amounts of pollen over the longest season, are those causing the greatest amount of hay fever. The fact that true hay fever is caused by the inhalation of wind borne pollen only, exclude from consideration a long list of insect pollinated plants and trees, as these are never present in the atmosphere in sufficient amounts to reach the nostrils in the course of normal respiration. Other important factors of the pollen are their toxicity, buoyancy and ability to cause mechanical irritation.

The Technique of Doing Skin Tests:—The test which has been found to be the most reliable and is most extensively used, is the cutaneous test. This is performed by cleansing the forearm with alcohol, or ether and allowing to dry. The pollen diagnostic material is placed on the arm and with a sterile needle almost parallel with the skin, a few shallow punctures are made through the material not deep enough to draw blood. Each scarification should be made separately about two inches apart, using a separate needle. Four or five pricks are sufficient to carry the pollen extracts into the deeper layers of the skin.

The dry powdered form may be applied to scarified areas on the skin and to this is added a drop of 1/10 normal NaOH solution. Care should be used to prevent contamination of the areas of the arm reserved for other pollen diagnostics. Using a prearranged order will avoid confusing the skin tests.

The cutaneous reactions usually appear in sensitive individuals in about ten minutes, reaching the height of their reaction in from twenty to thirty minutes. These positive reactions consist of urticarial wheals surrounded by a zone of erythema. These wheals when they begin to form are characterized by pseudopodia which usually coalesce. Pseudo-reactions may be confusing but these are usually quite regular and circumscribed and never show pseudopodia. Where the pollen produces a maximum reaction there is no difficulty of interpretation. The larger and more irregular the wheal, the greater is the sensitiveness of the

patient to that particular pollen, and it is to that pollen that the attention should be directed.

Too much reliance should not be placed on these cutaneous tests. Nothing is more erroneous than the view commonly held that every case can be diagnosed and cured by the use of them. The skin may show positive reactions to a number of substances and yet have sufficient tolerance to show no clinical symptoms.

Treatment:—Preseasonal pollen desensitization is one of the most successful methods of treatment we have. There are few conditions present today in which the procedures carried out in treatment are so markedly different in the hands of the various physicians as in hay fever. There are many physicians, each with his own system and which is successful in his own hands. All of them, however, have several points in common. They all make use of pollen extracts of increasing strengths and most of them begin with small doses, gradually increasing the strength of the dose.

The object of the pollen treatment of hay fever is to produce a definite tolerance or desensitization to the pollen protein to the extent that the patient can tolerate the air during the pollinating season of the plant. In a few cases the prophylactic treatment with the pollen extract will fail to establish complete desensitization and these cases will not be fully protected during the season and will manifest the symptoms to a greater or lesser degree. The attack, however, will be of lesser severity and may be delayed beyond the usual date of onset. In these cases, it is best to continue with the treatment increasing the injections gradually, until there is complete alleviation of the symptoms.

Desensitization in hay fever is not permanent or stable. Freedom from hay fever symptoms lasting only as long as the antigen remains in combination with the tissue antibodies. The usual period of tolerance to pollen protein is probably about six weeks after the completion of treatment with the pollen antigen. From then on, there is a gradually diminishing degree of tolerance. It is therefore essential that the pollen antigen be administered annually and not too early as the tolerance may be lost before the hay fever season begins. Frequently, there are conflicting reports with the same methods of treatment. This is due in part to the weather conditions and to the pre-

valence of the pollen. Any one of a number of factors enter into the consideration and for that reason identical therapy will give varying results with the same physicians using the same technique.

The two methods of pre-seasonal treatment in use at present are:

I. THE LONG INTERVAL METHOD.

II. THE INTENSIVE METHOD.

The long interval method which was the first in use has yielded some very gratifying results. Treatment is begun about two months before the season begins, and ends with the beginning of pollination. The initial dose is determined by determining the dilution of the offending pollen which will just give a positive skin reaction and making the dose .1 or .2 c.c. of the next higher dilution; in other words the strongest solution that does not give a skin reaction. The injections are given at about five day intervals. Individuals vary greatly in their response to pollen therapy and the dosage and interval between doses will necessarily vary in different cases. Certain features are similar in all forms of treatment, namely that the patient should receive treatment in doses of increasing strength which should be just as strong as he will tolerate without showing an annoying reaction. A dose should never be given while a patient is still showing evidence of a local reaction from the preceding one.

The intensive interval method is advocated by Duke, of Kansas City. Treatment is begun about two weeks before the hay fever season begins. The importance does not lie particularly in the time consumed in treatment, but the fact that with a graduated series of doses given at regular intervals until the time when the pollen appears in the air in toxic quantities, the patient is receiving doses of such concentration as to nearly equal his limit of tolerance. Duke begins about two weeks before the hay fever season begins, using a small dose and doubling at each inoculation until the stronger dilutions are reached. With the smaller doses injection can be given twice daily at twelve hour intervals. The stronger dilutions are given at twenty-four hour intervals unless marked local reaction occurs in which case the remaining doses of the series are spread out in two of three day intervals. This method of treatment is frequently preferred by the patient to the long interval method on account of convenience and the fact that tolerance is more rapidly secured. Those patients who are not entirely relieved of their symptoms should continue treatment through the season, by supplemental doses of the highest pollen units at five or six day intervals. These additional doses give the patient the maximum protection at the time that the hay fever plants are pollinating. It is advisable to have patients receiving pollen treatment carry a few of the 3/8

grain capsules of ephedrine hydrochloride in the event of untoward symptoms appearing. While the action of this is slower than adrenaline it has the advantage of oral administration.

CO-SEASONAL TREATMENT

While the pre-seasonal method of treatment has been found to be the most effective, nevertheless, many patients will not present themselves until the actual attack has begun. Greater care is required in the treatment of the attack, for it must be borne in mind that the patient is already absorbing pollen from the atmosphere and the initial dose must be small, increasing it with caution. Using a large dose aggravates the condition and the symptoms become worse. The dose is progressively increased and as many given as may be needed to control the attack. The doses may be given daily for the first few times, or until a local or systemic reaction is produced, and then every two or three days. It may be necessary to give the full course of treatment before the symptoms entirely disappear, in some cases. Usually, they are benefited after receiving about four injections with complete cessation of the symptoms after the eighth or ninth dose.

For greater accuracy in determining the dose that the patient will tolerate, the following test can be performed. A few scarifications are made on the forearm as previously described. On one of the scarifications rub in some 1-100,000 dilution (10 unit per c. c. extract) on another scarification some 1-10,000 dilution (100 units per c. c.). Should both tests show a reaction begin with the 1-500,000 dilution. Should only one show a reaction, begin with the higher dilution. Should neither show a reaction begin with a solution of greater concentration. The reactions should begin to subside in 24 hours.

Hay fever resorts which have long been in vogue are losing their popularity. This previous popularity has been the greatest factor in their failure. The resorts that were located in woods comparatively free of hay fever grasses were turned into luxurious hotels with the subsequent clearing and cultivation of the grounds which resulted in a proliferation of weeds that defeated the purpose they were intended to serve.

Protein Reactions:—Occasionally a patient may be found to be unusually sensitive to pollen protein, so that in the course of the pollen treatment some dose may produce a severe constitutional reaction. Further treatment should be stopped until the reaction subsides. They are rarely serious but are very alarming to the patient. The reactions can be controlled by the hypodermic injection of 1 cc of adrenaline hydrochloride solution (1-1000). Atropine Sulphate gr. 1/100 may also be administered hypodermically to stimulate respiration. All clothing should be loosened,

especially about the chest and neck. An injection of pollen protein should never be given without having a solution of adrenalin hydrochloride on hand. The patient should not be allowed to leave the office until a half hour has elapsed following the protein injection. Should symptoms of reaction occur, such as sneezing, itching of the eyes or skin or difficult respiration, 5 minims of adrenalin hydrochloride should be given hypodermically and repeated if necessary. Small doses will be just as effective as larger ones if given early. With the occurrence of a constitutional reaction the remaining treatment should be given in fractional doses and it may be necessary or advisable to combine with it about 4 or 5 minims of adrenalin. Treatment should be stopped until any local reaction from the previous dose has disappeared. Should the treatment be stopped for over a week for many reasons it is always advisable to begin treatment again with small doses to avoid an anaphylactic reaction.

Surgery in the treatment of Hay Fever:—Surgery on the whole is strongly to be condemned as a means of treatment in this condition. That the condition of the nose is an important factor in the production of hay fever cannot be denied. The question arises as to the advisability of correcting abnormal nasal conditions. The following have been considered of etiological importance the sinuses, polyps, deflected septa, spurs, etc. The importance of these has been greatly overestimated by certain allergists. At one time, it was firmly believed that an ethmoidectomy would cure hay fever or asthma and some rhinologists still hold this view. The results on the whole have been unsatisfactory and it is only the rare case that has given even temporary relief. In hay fever, there is a tendency to edema of the membranes and polyp formation and their removal frequently leads to the formation of more polyps. These, by their obstruction to the aeration and ventilation of the sinuses, lead to sinusitis, which, in their turn, causes an increased edema and polyp formation with the establishment of a vicious cycle. Operative work should, under no circumstances, be performed during the course of an attack. These patients do not have the tendency to healing and recovery of membrane structure that is possessed by normal individuals. Myer-Solis Cohen believes that all cases operated upon should have a course of autogenous vaccine treatment. Frequently vaccine treatment which failed before operation—before the foci were removed, show good results if given following the operation.

Summarizing briefly:—Pollenosis is primarily a constitutional disease in which the patients' tissues are generally sensitive to the particular pollen that causes the symptoms. Nasal localization is sometimes a resultant of the systemic reaction. In pollenosis, there are often two or more causative factors which must often be taken into consi-

deration in the treatment of the patients. One of the factors may be termed as predisposing, the other exciting. Usually, the predisposing factor is specific, while the exciting cause may or may not be. Also the exciting cause may exert its action either locally or constitutionally. Such a non-specific provocative cause usually would not produce the symptoms if a specific constitutional predisposition did not exist at the same time. The localization of the reaction in the nose may be due in part to a specific sensitization of the nasal mucosa. The factor deciding nasal localization may equally be non-specific, such as mechanical irritation in the nose.

In a person with pollenosis there may be a co-existent sensitization to some protein which would not cause the symptoms of hay fever, but the reaction to which superimposed upon the pollen reaction, enhances the manifestations of the latter. MacKenzie advocated the preseasional desensitization with nasal sprays containing concentrations of the specific pollen. This is good treatment given with the usual preseasional hypodermic injections. There are cases of local sensitization affecting only the nasal mucous membrane or conjunctiva and yet giving a negative skin reaction to the pollen.

It may be possible as suggested by Bernton that one may be sensitive to only one of the constitutional proteins of the pollen. He found that just as one may give a negative reaction to the whole wheat protein and a positive reaction to one of the constituent wheat proteins, so one may give a negative reaction to the usual pollen protein, but a strongly positive one to one of the fractionations. Non specific irritation increases the local symptoms. The pollen besides its specific properties is an actual mechanical irritant. One may be sensitive to several proteins, maintaining however an allering equilibrium when in contact with only one, but showing the symptoms when coming in contact with two or more.

BIBLIOGRAPHY

GEO. M. COATES. Rhinological Aspects of Allergy. *Annals of Otology, Rhinology and Laryngology*, 1926, 73:35.

BERNTON, H. S. Constitutional Reactions of Hay Fever. *J. Lab. and Clin. Med.*, 13:181-182 Nov., '27.

VAUGHAN, W. T. Pollenosis—Constitutional and local Factors. *Arch. Int. Med.*, 40:386-396, Sept., '27.

WILMER, H. B. The Diagnosis and Treatment of Allergic Diseases. *Annals of Otology, Rhinology and Laryngology*, 1926.

SCHEPPEGRAL, W. Distribution and Reactions of Hay Fever. *M. J. and Record*, 124:323-326, Sept. 15, 1926.

KOLMER, J. A. Nature of Hay Fever and Bronchial Asthma. *Annals of Otology, Rhinology and Laryngology*, 35:758-768, Sept., '26.

BROWN, A. Diagnosis and Treatment of Seasonal Hay Fever. *M. J. and Record*, 123:301-303, Mar. 3, 1926.

EYERMAN, C. H. Nasal Manifestations of Hay Fever. *Ann. Laryng., Rhin. and Otol. Soc.*, 33:477-483, '27.

DUKE, W. W. Allergy as Related to Otolaryngology. *Ann. Otol., Rhinol. and Laryngology*, 36:820-828, Sept., '27.

THE RHODE ISLAND MEDICAL JOURNAL

Owned and Published by the Rhode Island Medical Society
Issued Monthly under the direction of the Publication Committee, 106 Francis Street

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309 Olney Street, Providence, R. I.

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Advertising matter must be received by the 10th of the month preceding date of issue.

Advertising rates furnished upon application to the business manager, CREIGHTON W. SKELTON, M.D., 166 Broad St., Providence, R. I.

Reprints will be furnished at the following prices, providing a request for same is made at time proof is returned: 100, 4 pages without covers, \$6.00; each additional 100, \$1.00; 100, 8 pages, without covers, \$7.50; each additional 100, \$2.80; 100, with covers, \$12.00; each additional 100, \$4.80; 100, 16 pages, without covers, \$10.50; each additional 100, \$3.00; 100, with covers, \$16.00, each additional 100, \$5.50.

SUBSCRIPTION PRICE, \$2.00 PER ANNUM. SINGLE COPIES, 25 CENTS.

Entered at Providence, R. I. Post Office as Second-class Matter.

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The R. I. Medico-Legal Society—Last Thursday—January, April, June and October. Roy McLoughlin, President; Dr. Jacob S. Kelley, Secretary-Treasurer.

EDITORIALS

BLOOD CHEMISTRY

Present interest in the bio-chemical examination of the blood dates from the publication of Folin's work in 1912. Blood chemistry is still a new feature in medical experience and is subject to the abuses which new methods must undergo. By colorimetric analysis, the non-protein nitrogen, urea nitrogen, uric acid, creatine, creatinine, cholesterol, bilirubin, chlorides, phosphates, calcium, dextrose, diastatic activity, and carbon dioxide

combining power of the blood may be closely estimated. The tests for urea nitrogen, uric acid, creatinine, dextrose, and for the carbon dioxide combining power are of special interest. Two factors determine the value of these tests:—the accuracy of the technician who makes the tests and the judgment of the clinician who interprets them. The frequently heard statement that "the blood chemistry is normal" may mean nothing to the spokesman or to the hearer and is then of doubtful value to the patient. Precise knowledge of the number of milligrams of urea nitrogen per 100 C. C. of blood, perhaps supported by knowl-

edge of the amount of uric acid and creatinine present, favors an exact prognosis of renal efficiency. Knowledge of the proportion of blood sugar present is of inestimable value in the diagnosis and treatment of diabetes. The carbon dioxid combining power of the blood furnishes an accurate index to the presence and degree of acid intoxication. With a proper appreciation of the difficulty, expense, and value of chemical examination of the blood, we can order the test indicated by the patient's condition, assure ourselves that the technician is competent to make the test accurately, and state the result in the figures then available, not contenting ourselves with the indefinite statement that "the blood chemistry is normal."

SPECIALISTS

One hears a great deal about "specialization" in the practice of medicine. Usually it is deprecated by the public and a large number of the doctors and yet specialization seems to continue without abatement.

In the past, more frequently than now, physicians charged the X-ray with ruining the art of physical examination. No doubt the X-ray may have dulled some minds but it also improved some, and the X-ray has continued to increase in importance and usefulness long past its experimental stage. Its introduction merely substituted one form of examination for another and the better one remains.

It is possible that the trend toward specialization may be another advance that cannot be stopped. The general practitioner, as good as he is, never solved tuberculosis by telling the patient to "lie around for awhile." Nor did he do much for the diabetic by telling him not to eat pie or cake. It was the specialist who put these patients in the sanatorium or hospital on definite régimes, and, most important, it was the specialist who recognized the necessity of teaching the patient how to keep himself well.

Gradually, physicians are giving other diseases their sole attention and order and improvement

in treatment will result. In the meantime, the trend toward specialization justifies itself and is likely to continue.

"NURSES, PATIENTS AND POCKETBOOKS"

This is a title of a book prepared by the Committee on Grading Schools for Nursing as a preliminary report. It contains much information that is interesting, showing that there is a big problem in the nursing situation.

Physicians are constantly hearing complaints from patients about the temperament and the financial sense of some nurses. The nurses also complain about the unjust demands of some patients and about the irregularity of employment.

The fact that complaints are heard from both sides indicates that there is something to be said on both sides. There are many nurses who enter the work with a true sense of service to humanity. There are some who see in it a means of financial freedom.

Much of the friction that has been engendered is undoubtedly due to the rapid growth in the nursing field. In 1880 there were 15 training schools for nurses, whereas in 1926 there were 2,155. These schools are turning out yearly about 20,000 new nurses to be added to the 200,000 already in practice. The proportion between the number of nurses and the number of physicians is rather striking. In 1900 there was approximately 1 nurse to every 10 physicians, whereas in 1926 the proportion was 15 nurses to every 10 physicians.

This tremendous growth has brought new problems that have not yet been solved. These growing pains are being studied now in a very thorough fashion, but until the Committee can give a final report that will formulate standards for grading the schools and suggest methods of supervision, the criticism levelled at this question should be constructive and kindly. Physicians should be particularly patient, as the profession has had its difficulties and is not yet entirely free from criticism.

OBITUARY

DR. JAMES H. DAVENPORT

AN APPRECIATION

Doctor James Henry Davenport was born in Fall River, March 17, 1862, and died in Providence at the Jane Brown Memorial Hospital, October 15, 1928. He graduated from Brown University in 1883. He studied medicine at the University of Vermont and at Harvard Medical School, received the degree of Doctor of Medicine from both, and was intern at the Rhode Island Hospital, 1885-1886, and at the Boston Lying-In Hospital 1887. He then returned to Providence, where he remained until his death.

As has happened with many young medical men with a considerable obstetrical experience, Doctor Davenport soon became interested in gynecology. After his return from Boston in 1887, he took up gynecological work with Doctor George W. Porter and the next year was appointed assistant surgeon, and later surgeon, to the department of gynecology at the Rhode Island Hospital, where he was actively connected with the department for over thirty years. He soon attained phenomenal success in his chosen field. That this was due far more to his sound judgment, his quick observation, and his ready and inventive mind, than to the teaching of his masters, will be readily admitted. He had unusual ability as a diagnostician, a prime requisite in surgery and was a rapid operator, both smooth and dexterous. His technical skill was unexcelled in the state and perhaps in New England. Though conservative in the trial of new things, he was quick to see and apply real improvements.

Doctor Davenport lived in a time of change. The physician of an older generation was passing away. The family doctor, the family friend, the comforter, the counsellor in many things besides the ills of the body, was disappearing. The onrush of medical knowledge now demands incessant devotion to science, and one man can no longer compass the whole range of medicine. The specialist has come to stay, but there is often little time for him to learn to know and love his patients. Doctor Davenport combined what was

best in both. A skilled specialist, a leader in his art, he had so imbibed the spirit of the older generation, that he endeared himself to those whom he served and became their friend as well as their physician. In these days, it is a splendid thing to say of a man that his aim was not altogether brilliant surgery, but the comfort and cure of his patients. How much more this involves than surgical technique none knew better than he.

One hears many regrets that the physician of today has turned his back on the humanities, that he has been absorbed by his pursuit of science. It was not so with Doctor Davenport. He was a lover of letters and of art, making true companions of his books. He was a friend of institutions that make for culture. We are proud of his unique library of the literary works of medical men, which he so generously placed for us in our Medical Library. May it forever serve as a memorial of the giver, and may it attract our physicians, during the years to come, to a closer contact with that human culture, which is becoming less and less a factor in the life of the modern physician. Thus will his gift to our library best fulfill the wishes of him who gave it. His liberality and breadth of view, due in large part to his alert mind, proved his interest in those many great and good things for which such a library stands.

Quiet and modest though he was, he was vastly dependent on the companionship of others. His kindness, his sense of humor, his even temper, his adaptability, made him welcome in many different circles. He abhored sham whether it be in doctrine, in practice, or in men. He quickly grasped the essential character of people, the accuracy of his estimate of men being almost uncanny, but his judgment was always fair. Especially as concerned his professional colleagues was his attitude always just and generous. Friendship was to him life's greatest possession and it was vouchsafed to him in abundance.

Doctor Davenport's philosophy of life was to take it as it came. He enjoyed small pleasures as well as great. He wanted others to enjoy life too, and did his part to make them do so. He had none of that rebellious spirit which the psychiatrists tell us is at the bottom of so much mental unrest. Hence, when the end came, our friend met it calmly and serenely. Though it was linger-

ing and filled with much discomfort, finally, without complaint and cheerful, as always, with those about him, he quietly left us.

CHARLES V. CHAPIN
HALSEY DEWOLF
JOHN M. PETERS
Committee.

JAMES RAYMOND MORGAN

James Raymond Morgan, son of James Rogers and Jane Gray (Raymond) Morgan, was born in Waterford, New London County, Conn., September 28, 1847, and died in the Rhode Island Hospital, September 25, 1928, lacking three days of being eighty-one years old. Funeral services were held at the Beneficent Church, of which he was a member, and the burial was at Cedar Grove Cemetery, New London, Conn.

For the past six years Dr. Morgan was confined to bed and a wheel chair after having been an invalid for years.

In 1892 Dr. Morgan married Miss Jennie Ellen Warren, daughter of Dr. W. W. J. Warren, of Lyme, Conn. She died in May, 1926. There were no children and Dr. Morgan left no relatives nearer than a cousin.

Dr. Morgan's medical training was exceptional, especially for one of his generation. He entered the Harvard Medical School in September, 1868. After two years there he received an appointment as interne at the Rhode Island Hospital and served for one year from September, 1870. This was the beginning of fifty-eight years' interest in the Rhode Island Hospital. He was the fifth interne to receive the appointment and at the time of his death was the oldest of the living graduates of the Rhode Island Hospital.

Following this service came another year, his third (it was then a three-year course), at the Harvard Medical School, followed by a year as House Officer in the Surgical Service at the Boston City Hospital. He then received his Doctor's Degree in Medicine from Harvard University, 1873. It was customary in those days not to grant the degree to anyone entering a service in a Boston Hospital until that service was finished. Thus the Visiting Surgeon used not impair his dignity by calling a member of his House Staff, "Doctor."

All this was followed by a year abroad in Vienna where he gave especial attention to dermatology and obstetrics.

Dr. Morgan began general practice in Providence in the autumn of 1874, having an office for six years on Broad, near Fenner Street. He then removed to Franklin Street where he had his office and residence for nearly forty years. While always engaging in general practice, he became recognized as an authority in dermatology.

Staff service at the Rhode Island Hospital was practically continuous from January, 1876, until his death, a period of fifty-two years lacking three months. He held the following appointments: Surgeon to Out-patients, January, 1876, to January, 1883; Visiting Physician in House, January, 1883, to May, 1891, to October, 1909. (This department Dr. Morgan organized and was its first head); Consultant, December, 1909, until his death.

Death did not end the evidence of his interest in the hospital and his special work. The greater part of his estate was left to the Rhode Island Hospital, \$4,000 for a bed in memory of his mother and \$11,000 to the Out-patient Department for the promotion of Treatment of Diseases of the Skin.

His was a very consistent life. He did not preach but he certainly practiced what he could have preached. The practice of medicine was his chief interest—almost his sole interest, and this was without any idea of personal profit or aggrandizement. He seemed never to think of himself except as an instrument of the profession. He was wise enough, however, to try to offset the wear and tear of his work by a yearly month's vacation.

With this concentration on his profession there was not time or energy for much outside. He deeply loved his home. His mother lived with him until she died at an advanced age in 1892.

His one hobby was a good horse and he always had one, usually one with a lively disposition.

The invalidism of his later years never clouded his impersonal cheerfulness nor caused complaint. His work was his life, yet as his work stopped the scheme of things was still accepted.

What is the reward of such a life? To him who lived it the idea that a reward was due never occurred. To Dr. Morgan it was sufficient that he had been a physician. He was a good physician.

CHARLES H. LEONARD
LUCIUS C. KINGMAN
JOHN M. PETERS

DR. MEYER A. PERSKY

Dr. Meyer A. Persky passed away suddenly on August 31st, 1928, at his home in Providence. His untimely death occurred when he was but thirty-six years of age.

Dr. Persky was born in Russia, the son of Joseph Persky and Lena Zammara. He came to the United States at an early age, attending the public schools of Haverhill and of Malden, Massachusetts. He obtained his medical degree from Tufts College Medical School in 1915. Throughout his school career, Dr. Persky was always a brilliant scholar and graduated with honors from both his preparatory school and professional school.

After a year's internship at the House of Mercy Hospital in Pittsfield, Massachusetts, he came to Providence in 1916 to practice general medicine. In 1917, he enlisted in the United States Army and saw active service overseas as a medical officer with both the British and American forces. After his honorable discharge from the Army at the conclusion of the World War, he returned to Providence to resume his practice of medicine.

Dr. Persky spent almost the entire year of 1926 in Europe doing intensive post-graduate work in surgery. He collected a great deal of data in Vienna and Budapest which was to form the basis of several scientific papers. Several weeks before his death, in the June 1928 Annals of Surgery, the first of these papers appeared under the title of Brachial Plexus Anesthesia. He received letters from several well-known surgeons in this country offering favorable comment on this thesis.

Further papers were in the process of completion at the time of his unexpected death. In previous years, other articles by Dr. Persky appeared from time to time in various medical journals.

Dr. Persky was a member of the Providence Medical Association, the Rhode Island Medical Society, a former president of the Jacobi Medical

Club, a fellow of the American Medical Association, a member of Overseas Lodge of Masons and Providence Royal Arch Chapter, Surgeon in the Providence Post of the Jewish Veterans of the Wars of the Republic, a member of the Prague Surgical Association and the Providence Sheep-Skin Club. He was also affiliated with the Medical Staffs of the Miriam and Homeopathic Hospitals of Providence.

Dr. Persky's studiousness and devotion to his professional work were greatly admired by all those who came in contact with him. He was unmarried and is survived by his mother, father, two brothers, and a sister.

HENRY L. C. WEYLER, M.D.
CHARLES O. COOKE, M.D.
SIMON ALBERT, M.D.

SOCIETIES

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. Arthur H. Ruggles, Monday evening, February 4, 1929, at 8:50 o'clock. The records of the last meeting were read and approved.

An obituary on Dr. Meyer A. Persky was read by Dr. H. C. L. Weyler. It was voted to accept this, spread it on the records and send copies to the Rhode Island Medical Journal and Dr. Persky's family. The first paper by Dr. Roland Hammond was on, "Teaching Orthopedic Surgery with Motion Pictures." This was illustrated by a film which he used in teaching nurses, showing the orthopedic treatment at the Rhode Island Hospital and Crawford Allen Memorial. Remarks were made by Dr. Danforth and Dr. Rounds.

Dr. Harry C. Messinger presented a case of Optic Atrophy caused by Leontiasis Ossea. The patient, fourteen years old, attributed her left-sided blindness and enlargement of left side of head to a fall at the age of three. She had no marked abnormalities except that caused by the local overgrowth of bone. It usually occurs in girls at puberty. Several photos showed the girl at varying ages. Dr. Henry McCusker reported

another case. This case also had a history of injury to the side of the head in early life. A series of films showed the typical bone changes in the skull in Pagets disease compared with the bony enlargement of the facial bones in Leontiasis Ossea. There were also photos of the face. Dr. Murray Danforth showed a series of X-rays of Pagets disease to compare with Dr. Messinger's case. Dr. Phillip Batchelder made some remarks. Dr. I. Gerber described several slightly different types of cases called Leontiasis Ossea. Dr. Van Benschoten discussed eye symptoms. Dr. C. A. McDonald discussed the nerve symptoms. Drs. Harrington, McCusker and Messinger discussed the problem.

The meeting adjourned at 10:30 P. M. Attendance 51. Collation was served.

Respectfully submitted,
PETER PINEO CHASE, *Secretary*.

REPORT OF MEETING OF NEW ENGLAND
MEDICAL COUNCIL

Being the only member of the New England Medical Council from Rhode Island attending the last meeting, I submit briefly a report of that meeting.

It was held at Belgrade Lakes in connection with the Seventy-fifth Anniversary of the Maine Medical Society. Delegates to the New England Medical Council were entertained as guests, all of whom were delighted with the hospitality extended. The meeting of the Council was held on June 19th at the Belgrade Hotel. There were present representatives from each of the New England States. The program consisted of reading and discussion of papers dealing with the drugless cult problem.

It was voted that speakers be furnished to the Maine Medical Society for the purpose of combating an amendment to an osteopathic bill which will be presented in Maine early next year.

The object of the Council appears to be to do away with medical journals published in New England except the one published in Boston. Our transactions are well presented in our own journal, and it is improving from year to year. It is one of which we are all proud, and I am in favor of continuing its publication.

The other matter which the Council is much interested in is reciprocity. This is an impossibility, as Rhode Island has for many years and now maintains a higher standard for its candidates than is required in any of the other New England States. Reciprocity under the present conditions cannot, therefore, be considered, ex-

cept by the adoption and use of the individual endorsement certificate.

I have reviewed very carefully the reports of the two previous meetings of this Council, and was in attendance at this, its third meeting. I fail to be convinced that it has resulted in very much benefit to any party. It certainly has not to the medical profession in Rhode Island.

Respectfully,
BYRON U. RICHARDS, M.D.

HOSPITALS

THE MEMORIAL HOSPITAL

Meeting of the Memorial Hospital staff held January 3, 1929. The meeting was called to order at 9:15 by President Wheaton. In the absence of the regular Secretary, Dr. P. B. Batchelder was appointed Secretary *pro tem.*

The minutes of the preceding meeting were read and approved.

The record of attendance was taken. Fifteen members were present.

The scientific program consisted of a presentation of interesting cases from the hospital records, as follows:

Dr. E. A. Shaw: (1) Ovarian Cyst, (2) T. B. Mysentery Gland with Intestinal Obstruction, (3) Bullet Wound in Abdomen.

Dr. F. V. Hussey: Ovarian Cyst.

Dr. A. T. Jones: (1) Ovarian Cyst, (2) Massive Bladder Stone.

Dr. J. L. Wheaton: Sarcoma of Chest.

Dr. C. F. Sweet, Influenza with question of Encephalitis.

On motion of Dr. C. F. Sweet, the officers for the previous year were re-elected.

Dr. J. L. Wheaton, President

Dr. J. E. Donley, Vice President

Dr. J. F. Kenney, Secretary

Dr. J. L. Turner, Treasurer

On motion of Dr. F. B. Sargent, Dr. H. B. Moor and Dr. H. E. Harris were appointed a committee to consider the matter of attendance at staff meetings and to report at the next meeting.

Dr. Wheaton announced that the Entertainment Committee would be appointed at the next meeting.

On motion of Dr. Sweet the dues were fixed at \$1.00 for the ensuing year.

Meeting adjourned at 10:30 P. M.

P. B. BATCHELDER, M.D.

Secretary pro tem.